

Remarks/Arguments

The foregoing amendments in the specification and claims are of formal nature, and do not add new matter.

Prior to the present amendment, claims 39-51 were pending in this application. Claims 44-49 were allowed while claims 39-43 and 50-51 were rejected on various grounds. Claims 47-48 have been cancelled. Previously allowed claim 44 has been amended by cancellation of reference to "the extracellular domain lacking its signal peptide" and part (e) to overcome the new matter rejection. This amendment should not affect the allowability of claim 44. In addition, claims 39-43 have been amended to present the claims in better condition for allowance. Entry of these amendments is respectfully requested.

Priority

The Examiner states that Applicants are only entitled to the 2/22/00 priority of the PCT case. It is noted for the record that, the gene amplification data, first disclosed in US Provisional Application Serial No. 60/099,803 on September 10, 1998, the priority of which is claimed in the present application, establishes patentable utility for this case, as will be evident in the discussion below.

Gene amplification is an essential mechanism for oncogene activation. It is well known that gene amplification occurs in most solid tumors, and generally is associated with poor prognosis. As described in Example 92 of the present application, the inventors isolated genomic DNA from a variety of primary cancers and cancer cell lines that are listed in Table 8 (pages 230-234 of the specification), including primary lung cancers and colon cancers of the type and stage indicated in Table 8 (page 227). As a negative control, DNA was isolated from the cells of ten normal healthy individuals, which was pooled and used as a control (page 222, lines 34-36). Gene amplification was monitored using real-time quantitative TaqMan PCR. The gene amplification results are set forth in Table 9. As explained in the passage bridging pages 222 and 223, the results of TaqMan PCR are reported in Ct units. One unit corresponds to one PCR cycle

or approximately a 2-fold amplification, relative to control, two units correspond to 4-fold, 3 units to 8-fold, etc. amplification. PRO214 showed 1.16- 2.76 fold gene amplification in a number of lung and colon tumors.

The attached Declaration by Audrey Goddard clearly establishes that the TaqMan real-time PCR method described in Example 92 has gained wide recognition for its versatility, sensitivity and accuracy, and is in extensive use for the study of gene amplification. The facts disclosed in the Declaration also confirm that based upon the gene amplification results set forth in Table 9, one of ordinary skill would find it credible that PRO214 is a diagnostic marker of human lung and colon cancer. It is, of course, true that further research might be needed to develop PRO214 into a diagnostic product but the logic underlying Applicants' assertion that PRO214 is a diagnostic marker of lung and colon cancer is a "real world use" for the polypeptide encoded by the claimed nucleic acid.

Applicants have also deleted all references to "extracellular domain" to overcome the new matter rejection. Accordingly, the effective filing date of the present application is 9/10/1998.

Specification

The specification has been objected to for containing embedded hyperlinks and/or other form of browser-executable code. The foregoing amendment, which deleted all embedded hyperlinks, is believed to overcome this objection.

Sequence listing

The Examiner noted that the specification failed to recite appropriate sequence identifiers for sequences cited, for example, at page 14, line 17. Applicants will provide a new sequence listing separately to overcome the objection.

IDS

The attached IDS in compliance with 37 C.F.R. 1.98(a)(1) listing the authors, title and publication date, as requested, is believed to overcome this rejection.

Claim Rejections – 35 USC § 112, first paragraph

Claims 39-43, 50-51 are rejected under 35 USC § 112, first paragraph, as allegedly not enabling nor providing adequate written description or evidence of possession of the claimed genus in the specification.

As discussed above, the claims, as currently amended, recite PRO214 polypeptides associated with the formation or growth of lung or colon tumor. Accordingly, the claims are drawn to a genus of polypeptides defined by biological activity and sequence identity. Coupled with the general knowledge in the art at the time the invention was made, one skilled in the art would have reasonably accepted that the inventors were in the possession of the invention. Also, one skilled in the art would have known how to make and use the claimed nucleic acids without undue experimentation. As the M.P.E.P. states, "The fact that experimentation may be complex does not necessarily make it undue, if the art typically engages in such experimentation" *In re Certain Limited-charge cell Culture Microcarriers*, 221 USPQ 1165, 1174 (Int'l Trade Comm'n 1983), *aff. sub nom.*, *Massachusetts Institute of Technology v A.B. Fortia*, 774 F.2d 1104, 227 USPQ 428 (Fed. cir. 1985) M.P.E.P. 2164.01.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw the present rejection.

Claim Rejections – 35 U.S.C. § 102

Claims 39-42, 50, 51 were rejected under are rejected under 102 (a) as being allegedly anticipated by Ruben (dated 11/18/1999) which discloses a nucleic acid molecule with 83.93% identity to SEQ ID NO: 109 of the present application.

As discussed above, Applicants rely on the gene amplification data (Example 92) for support of patentable utility for polypeptide PRO214, which was first disclosed in US Provisional Application Serial No. 60/099,803 on September 10, 1998, priority for which is claimed in the present application.

The effective date of the cited primary reference Ruben is 11/18/1999 which is after the effective filing date (9/10/1998) of the present application. Hence, Ruben is not appropriate prior art under 102(b) and does not anticipate the present claims.

Hence Applicants request that this rejection be withdrawn.

Claim Rejections – 35 U.S.C. § 103

Applicants acknowledge the Examiner's comments regarding the common ownership of claims.

Claims 39-43 were rejected under 103 (a) as being unpatentable by Koehrer (6/11/1999) which teaches a protein at least 99% identical to SEQ ID NO: 109.

Applicants rely on the gene amplification data (Example 92) for support of patentable utility for polypeptide PRO214, which was first disclosed in US Provisional Application Serial No. 60/099,803 on September 10, 1998, priority for which is claimed in the present application.

The effective date of the cited primary reference Koehrer is 6/11/1999 which is after the effective filing date of the present application. Hence, Koehrer is not prior art under 35 U.S.C. §102 and is not available under 35 U.S.C. §103(a) and thus, the present claims are not obvious over Koehrer.

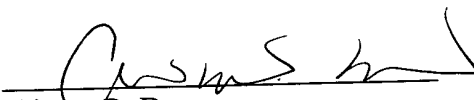
Hence Applicants request that this rejection be withdrawn.

The present application is believed to be in *prima facie* condition for allowance, and an early action to that effect is respectfully solicited.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 08-1641 (Attorney Docket No.: 39780-1618P2C2). Please direct any calls in connection with this application to the undersigned at the number provided below.

Respectfully submitted,

Date: April 1, 2003


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